

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/005106 A3

(51) International Patent Classification⁷: **B25J 5/00, 3/02,**
G21F 7/06, G21C 17/013, B25J 15/00

(74) Agent: **HARRISON GODDARD FOOTE;** 31 St.
Saviourgate, York YO1 8NQ (GB).

(21) International Application Number:
PCT/GB2004/002915

(22) International Filing Date: 5 July 2004 (05.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0315945.6 8 July 2003 (08.07.2003) GB

(71) Applicant (for all designated States except US): **BRITISH
NUCLEAR FUELS PLC** [GB/GB]; Risley, Warrington,
Cheshire WA3 6AS (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DANIEL, Gerald,**
Albert [GB/GB]; BNFL plc, Building 1100, Daresbury
Park, Warrington WA3 6AS (GB). **BROADHURST,**
Brent [GB/GB]; BNFL plc, Building 1100, Daresbury
Park, Warrington WA3 6AS (GB). **HARKENS, James,**
Philip [GB/GB]; BNFL plc, Building 1100, Daresbury
Park, Warrington WA3 6AS (GB). **ROBSON, Colin,**
James [GB/GB]; BNFL plc, Building 1100, Daresbury
Park, Warrington WA3 6AS (GB).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

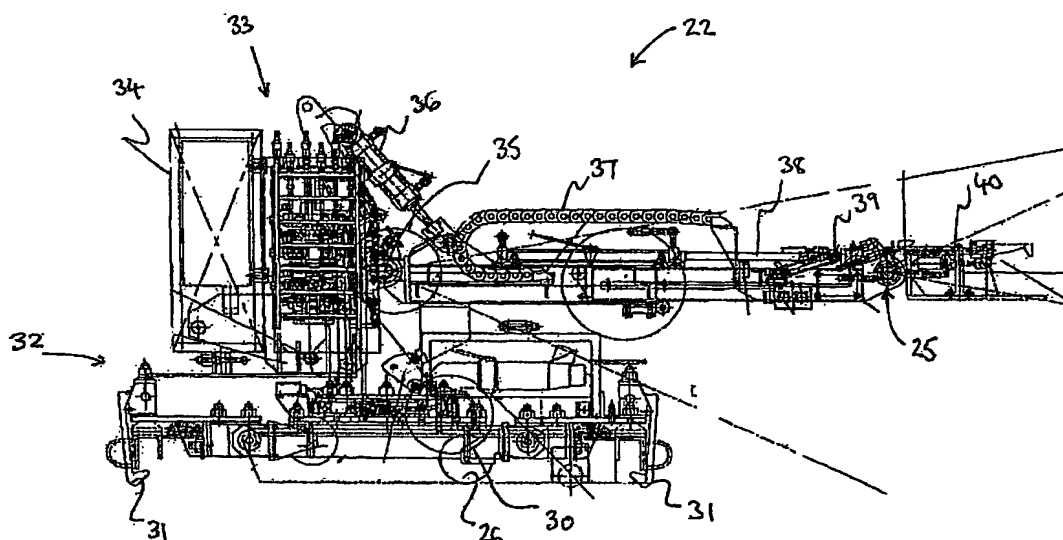
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: APPARATUS FOR MANIPULATING AN OBJECT IN A CELL REGION COMPRISING A REMOTELY
CONTROLLED HYDRAULIC ARM



(57) Abstract: A method and apparatus for manipulating a target object is disclosed. The manipulator apparatus includes a base (23) which may be secured to a trolley (13) and a hydraulic arm (24) mounted on the base (23) arranged for being controlled remotely by a user. The arm (24) includes at an end distal from the base (23) a tool coupling (25) which is arranged to receive a variety of tools for performing work on the target object.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
24 March 2005